

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for determining a data rate of a user equipment (UE) for an enhanced uplink dedicated channel (EUDCH) service ~~by a Node B~~ in a mobile communication system ~~having a radio network controller (RNC), the UE transmitting UE transmission power class information to the RNC, and the Node B supporting the EUDCH service of the UE~~, the method comprising the steps of:

receiving at a radio network controller (RNC) a radio resource control (RRC) message including total transmission power information of the UE from the UE;

receiving at a Node B the total transmission power information of the UE from the RNC through a Node B Application Part (NBAP) message;

receiving at the Node B uplink channel condition information of the UE from the UE through a physical channel; and

determining a data rate of the UE based on the uplink channel condition information and the total transmission power information.

~~receiving uplink channel condition information of the UE from the UE, and receiving UE transmission power class information from the RNC; and~~

~~determining a data rate of the UE considering the uplink channel condition information and a total transmission power corresponding to the UE power class information.~~

2. (Original) The method of claim 1, wherein the uplink channel condition information of the UE is transmission power information of the UE.

3. (Currently Amended) The method of claim 2, further comprising the step of calculating at the node B transmission power margin information of the UE using the total transmission power and the transmission power information, and determining a data rate of the UE based on the transmission power information and the transmission power margin information.

4. (Currently Amended) A method for determining a data rate of a user equipment (UE) for an enhanced uplink dedicated channel (EUDCH) service ~~by a Node B~~ in a mobile

communication system ~~having a radio network controller (RNC), the UE transmitting UE transmission power class information to the RNC, and the Node B supporting the EUDCH service of the UE~~, the method comprising the steps of:

receiving at a radio network controller (RNC) a radio resource control (RRC) message including total transmission power information of the UE from the UE;

receiving at a Node B the total transmission power information of the UE from the RNC through a Node B Application Part (NBAP) message;

receiving at the Node B transmission power margin information of the UE from the UE through a physical channel; and

determining a data rate of the UE based on the transmission power margin information and the total transmission power information.

~~receiving transmission power margin information of the UE from the UE, and receiving UE transmission power class information from the RNC; and~~

~~determining a data rate of the UE considering the transmission power margin information and a total transmission power corresponding to the UE power class information.~~

5. (Cancelled)

6. (Currently Amended) A method for determining a data rate of a user equipment (UE) for an enhanced uplink dedicated channel (EUDCH) service ~~by a Node B in a mobile communication system having UE and the Node B supporting the EUDCH service of the UE~~, the method comprising the steps of:

transmitting at a radio network controller (RNC) a radio resource control (RRC) message including maximum allowed uplink transmission power information of the UE to the UE;

receiving at a Node B the maximum allowed uplink transmission power information of the UE from the RNC through a Node B Application Part (NBAP) message;

receiving at the Node B uplink channel condition information of the UE from the UE through a physical channel; and

determining a data rate of the UE based on the maximum allowed uplink transmission power information and the uplink channel condition information.

~~receiving uplink channel condition information of the UE and UE transmission power class information from the UE; and~~

~~determining a data rate of the UE considering the uplink channel condition information and a total transmission power corresponding to the UE power class information.~~

7. (Original) The method of claim 6, wherein the uplink channel condition information of the UE is transmission power information of the UE.

8. (Currently Amended) The method of claim 7, further comprising the step of calculating at the node B transmission power margin information of the UE using the total maximum allowed uplink transmission power information and the transmission power information, and determining a data rate of the UE based on the transmission power information and the transmission power margin information.

9. (Cancelled)

10. (Currently Amended) A method for determining a data rate of a user equipment (UE) for an enhanced uplink dedicated channel (EUDCH) service ~~by a Node B~~ in a mobile communication system ~~having the UE transmitting UE transmission power class information to a radio network controller (RNC), and the Node B supporting the EUDCH service of the UE,~~ the method comprising the steps of:

transmitting at a radio network controller (RNC) a radio resource control (RRC) message including maximum allowed uplink transmission power information of the UE to the UE;

receiving at a Node B the maximum allowed uplink transmission power information of the UE from the RNC through a Node B Application Part (NBAP) message;

receiving at the Node B transmission power margin information of the UE from the UE;
and

determining a data rate of the UE based on the maximum allowed uplink transmission power information and the uplink channel condition information.

~~receiving uplink channel condition information of the UE from the UE, and receiving a total transmission power of the UE from the RNC; and~~

~~determining a data rate of the UE considering the received uplink channel condition information and the total transmission power.~~

11. (Cancelled)

12. (Currently Amended) The method of claim 11, further comprising the step of calculating at the Node B transmission power ~~margin~~ information of the UE using the ~~total~~ maximum allowed uplink transmission power information and the transmission power margin information, and determining a data rate of the UE based on the transmission power information and the transmission power margin information.

13-19. (Cancelled)

20. (Currently Amended) A method for determining a data rate of a user equipment (UE) for an enhanced uplink dedicated channel (EUDCH) service ~~by a Node B~~ in a mobile communication system ~~having the UE and the Node B supporting the EUDCH service of the UE,~~ the method comprising the steps of:

receiving at a radio network controller (RNC) a radio resource control (RRC) message including total transmission power information of the UE from the UE;

receiving at a Node B maximum allowed uplink transmission power information and the total transmission power information of the UE from the RNC through a Node B Application Part (NBAP) message;

~~receiving at the Node B uplink channel condition information of the UE from the UE, and receiving maximum allowed uplink transmission power information and UE transmission power class information from the RNC; and~~

determining a data rate of the UE considering information having a smaller value out of the maximum allowed uplink transmission power information and a the total transmission power

information corresponding to the UE power class information, and the uplink channel condition information.

21. (Original) The method of claim 20, wherein the uplink channel condition information of the UE is transmission power information of the UE.

22. (Currently Amended) The method of claim 21, further comprising the step of calculating transmission power margin information of the UE using information having a value less than the maximum allowed uplink transmission power information and the total transmission power information, ~~and the transmission power information,~~ and determining a data rate of the UE considering the transmission power information and the transmission power margin information.

23. (Currently Amended) A method for determining a data rate of a user equipment (UE) for an enhanced uplink dedicated channel (EUDCH) service ~~by a Node B~~ in a mobile communication system ~~having the UE and the Node B supporting the EUDCH service of the UE,~~ the method comprising the steps of:

~~receiving at the Node B transmission power margin information of the UE from the UE;~~

~~receiving at the Node B maximum allowed uplink transmission power information and UE transmission power class information from the RNC;~~

receiving at a radio network controller (RNC) a radio resource control (RRC) message including total transmission power information of the UE from the UE;

receiving at a Node B maximum allowed uplink transmission power information and the total transmission power information of the UE from the RNC through a Node B Application Part (NBAP) message;

receiving at the Node B transmission power margin information of the UE from the UE;

and

determining a data rate of the UE considering information having a ~~smaller value out of~~ less than the maximum allowed uplink transmission power information and a the total

transmission power information ~~corresponding to the UE power class information~~, and the transmission power margin information.

24. (Currently Amended) The method of claim 23, further comprising the step of calculating transmission power information of the UE using information having a value less than the maximum allowed uplink transmission power information and the total transmission power information, ~~and the transmission power margin information~~, and determining a data rate of the UE considering the transmission power information and the transmission power margin information.

25. (New) The method of claim 1, wherein the RNC transmits the NBAP message including the total transmission power information to the Node B through an Iub interface.

26. (New) The method of claim 6, wherein the RNC transmits the NBAP message including the maximum allowed uplink transmission power information to the Node B through an Iub interface.